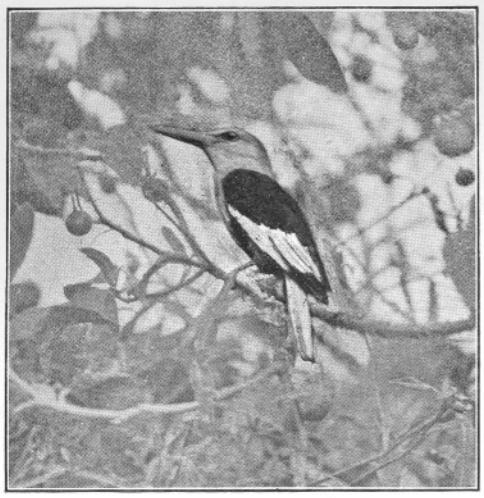
AFRICAN BROWN-BELLIED KINGFISHER

(Halcyon Semicæruleus.)



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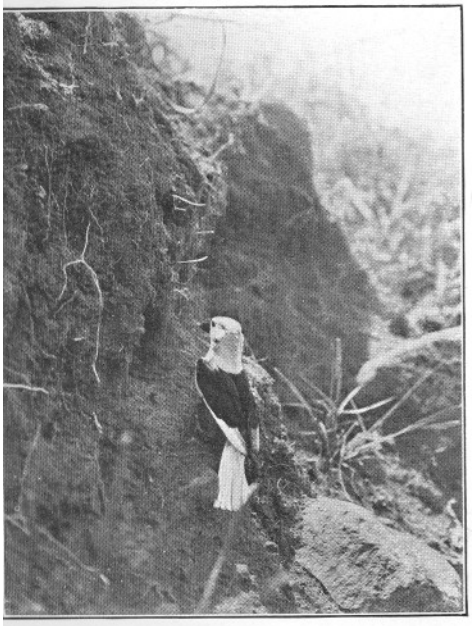
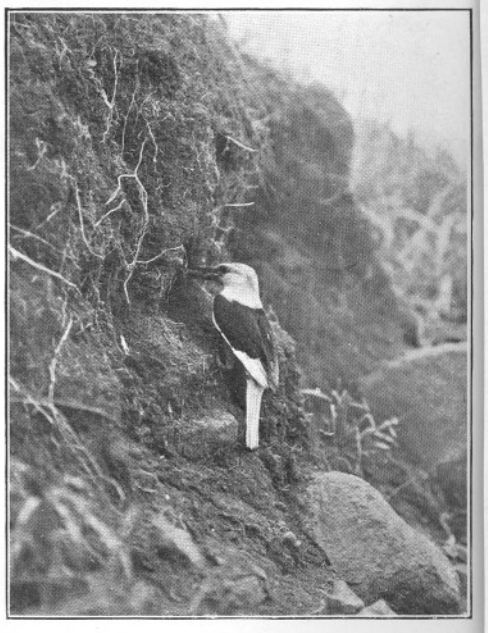


♀ At Nesting Hole.



♂ At Nesting Hole.

AFRICAN BROWN-BELLIED KINGFISHER (Halcyon Semicœruleus).

THE AFRICAN BROWN-BELLIED KINGFISHER

(*Halcyon semicæruleus*)

By Dr. V. G. L. van Someren, M.B.O.U.

I have called this the 'Brown-bellied Kingfisher' because I think this name to be more descriptive than that commonly used, namely 'White-headed Kingfisher,' for there are two other kingfishers with whitish heads.

This kingfisher is found both in East Africa and Uganda, but appears to be more plentiful in the former Protectorate.

It is common in the Acacia scrub country and also in the forest clearings along the railway line.

It is a handsome bird and most interesting.

The sexes are alike except that the female is duller and has a grey head lightly streaked with brown.

A point which possibly strikes the newcomer to this country is the fact that kingfishers are as a rule found at a great distance from water, and that their food does not consist of fish to any extent.

The only two species of kingfishers which I have actually seen taking fish are the Great Spotted Kingfisher (*Ceryle maxima*) and the Pied Kingfisher (*Ceryle rudis*).

This latter fishes in a very characteristic manner, and a full description of it will be found in an article on the bird in 'Studies of Bird-life in Uganda.'[1]

The question may naturally be asked, 'Why is it that these birds are found so far from water?' The answer is this, that the greater proportion of the diet of kingfishers consists of grasshoppers and locusts, and these are more abundant in open grass and scrub country than on banks of rivers.

It is true that one usually finds the small Purple Kingfishers

[1] *Studies of Bird-life in Uganda.* By Dr. R. A. L. van Someren and V. G. L. van Someren. London: John Bale, Sons & Danielsson, 1911.

(*Ispidina picta* and *C. cyanostigma*) near streams and swamps, but I venture to think that the food obtained in these localities consists almost entirely of insects.

The Brown-bellied Kingfisher frequents gardens in certain localities and does a lot of good in clearing off grasshoppers.

When alarmed they make a sharp whistling call of two notes; they also utter a chattering sound on occasions.

During June and July of 1912 I had a pair of these birds under close observation.

They had commenced nesting when I first found them, and the site chosen was a railway embankment not far from Port Florence station, where a considerable amount of shunting went on daily.

The nest was some eighteen inches in; for the first four inches the tunnel inclined upwards and then became level and ended in a circular chamber about six inches in diameter. The circumference of the tunnel was only just large enough to allow the bird to enter, and being made in red earth the white upper parts of the birds became very soiled in wet weather.

Whether the birds constructed the tunnel themselves or not I cannot say.

By carefully enlarging the entrance hole, one could, with the aid of a mirror, examine the contents of the nest.

On June 22 the nest contained four white eggs almost spherical in shape and somewhat glossy.

Nesting materials were absent. The female bird sat very close and could not be made to leave the nest, no doubt relying on the depth of the nest for protection.

Within a week of my finding the nest the eggs hatched, so that one could not reckon the incubation period.

The young were practically naked but soon showed signs of feathers and grew rapidly; when coming into feather they are curious-looking creatures, and when disturbed utter a hissing noise. The first plumage is like that of the female, though duller, and the beak and feet are brown.

It was after the young had hatched that I obtained the photographs of the parent birds at the nest.

The bank was some fifteen feet high, and the nest four feet from the top and difficult to get at with a camera, but by

driving a stout peg into the bank some five feet off the nest I was able to get the camera into position by attaching it to the peg with a handy device called a unipod; this little attachment has proved of great value in places where a tripod could not be used.

In a position such as this one has to dispense with the pleasure of working alongside the camera and it is necessary to have the hiding tent at a distance and to work the shutter with a long release.

I found these kingfishers to be extremely timid, and I had to go very gently with them; thus, instead of attempting to take photographs right away, I left the camera in position for a day or two before starting operations.

At the end of this time the birds had become used to the camera, and the plates which illustrate these notes were taken.

Of the two birds, the male appeared to be the more anxious but was certainly not the bolder, for he only faced the camera on two occasions.

During the period I kept these birds under observation, I noticed that they fed the young most frequently between 7 and 10 A.M. and 4 and 6 P.M.

The food consisted chiefly of grasshoppers. The method of capturing these was most interesting to watch; the birds would perch on the telegraph wire or railway signal and would keep a sharp lookout over a small area of ground. They did not sit motionless but continually raised and depressed their heads, at the same time making a side movement. They did not make any sound except when, having sighted their prey, they would utter a shrill whistle and dive straight down, capturing the insect in the beak.

They descend with remarkable force and rapidity, but do not seem to injure themselves with the impact. They utter the same call when they return to their lookout post as when they leave it.

The insects are always killed before being given to the young; this is done by repeatedly beating the head against the perch with sharp lateral movements.

Although the lake was within a short distance of the nest,

the birds did not resort thither in search of food for the young, but obtained it in the vicinity of the nesting site.

It was extremely difficult to photograph these birds owing to the fact that their movements were so rapid; they would descend to the entrance of the nest like a streak of pale blue lightning, and in a flash would enter.

Thus one was obliged to work the shutter at a great speed, and even then it often happened that, instead of finding the whole bird visible on the negative, perhaps only the tail would be seen projecting from the entrance.

The brilliance of the blue on the wings, with the sun shining on it, may be judged from the photographs—the blue is rendered an absolute white.

The young were a fortnight old when they left the nest and did not return to it.

THE ORGANIC CELL

Part III.—Its Methods of Division and Status in the Process of Heredity

By E. Wynstone-Waters, F.R.S.Edin., &c., *Late Senior Demonstrator of Anatomy at the Royal College of Surgeons, Edinburgh*

Schleiden, that famous pioneer of the cell-theory, assumed that cells arose by a process of crystallisation from an unorganised substance which he termed 'cytoblastema.' The later work of Remak, Kölliker, and others soon refuted this theory, and shortly afterwards, the very important teaching of Virchow that 'all cells come from pre-existing cells' came to be accepted, and since then this doctrine has become one of the central and fundamental principles of modern biology. Every cell is the result of the division of a pre-existing cell; this process having gone on far back through the ages that have been, to the very dawn of all life. Life results from pre-existing life; the so-called process of 'spontaneous generation' certainly does not exist at the present time.

Remak, as a result of his work on cell-division in the years